

Climatological Data for December, 1910.
DISTRICT No. 3, OHIO VALLEY.
FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

The weather during December, 1910, was cold, dark, and generally disagreeable over the greater portion of the district. Over central and eastern Kentucky, Ohio, and the northeastern portions of the district it was one of the coldest Decembers during the past 25 years. Sunshine was largely deficient over the central and northern sections. In Pennsylvania it was only about 20 per cent of the possible amount, and over most of the rest of the area mentioned it was less than 50 per cent. Over the more southerly portions, however, the sunshine was about normal. The mean temperatures averaged from 3° to 8° below normal, largely due to the persistence of moderately cold weather which prevailed during practically the first 25 days, rather than to any extremely low temperatures. There was but one warm period during the month. It occurred about the 28th and lasted only two or three days. During these few days, however, the temperatures were decidedly high for the season. Precipitation, mostly in the form of light snow, occurred nearly every day over the area drained by the Ohio River and its tributaries above Cincinnati, Ohio. The precipitation was above normal over a comparatively small area covering the upper watersheds of the Tennessee River. In Illinois and western Indiana it was decidedly deficient, but over the rest of the district, while below normal, it was sufficient for all general purposes. Some heavy snow occurred in the early part of the month instead of the usual rains for that period.

The most important events of the month were the heavy snow that fell about the 5th-6th and the moderately heavy rains which fell generally over the district in the period 28th-30th. The ground was covered with snow in varying depths from Indiana and central Kentucky eastward until the warm weather and rains near the end of the month, which carried it all off, except in the higher elevations of western Pennsylvania, where 1 or 2 inches still remained at the close of the month.

The month was generally favorable for wheat and grass in Kentucky, Ohio, and Indiana, but in Illinois, especially following the droughty conditions of November, there was entirely too little moisture for either of those crops. In Tennessee it was generally reported that wheat had attained little or no growth and that much had not germinated.

TEMPERATURES.

The cold weather which set in over the district about the 28th of November continued with remarkable persistency until the 26th day of December. During this period of four weeks the daily mean temperatures were almost continuously below normal, the daily deficiency ranging in amount between 2° and 20° . There were but three or four days during this time when the average daily temperature was above normal over any considerable area, while in many localities it was above normal only on one day. Much milder weather prevailed as a rule after the 25th, although it was again quite cold in parts of the district on the 31st. It was unseasonably warm in all parts of the district on the 28th and 29th. The daily average temperature at the various stations ranged from 4° to 20° above normal on those days, while maximum temperatures of from 56° to 73° were registered in the various States or parts of States located in this district, except that in western New York the highest temperature of the month was 46° on the 28th.

While the month as a whole was unusually cold, the average temperature ranging from 3° to 8° below normal,

and over much of the district, notably western New York, western Pennsylvania, West Virginia, Ohio, and Kentucky, it was one of the coldest Decembers, from the viewpoint of average temperature, during the past 20 to 25 years, yet no extremely low temperatures were registered. The lowest temperature reported in the whole district, -15° , occurred at Oakland, Md., on the 17th. The lowest in other States in the district was as follows: New York, Ohio, and Indiana, -10° ; Virginia, -9° ; West Virginia, -8° ; Kentucky and Tennessee, -3° ; North Carolina, zero; Illinois, 2° ; Alabama, 10° ; and Georgia, 12° . In Virginia, Kentucky, and Tennessee, temperatures below zero were registered at only one or two stations, and on only one or two days, while in Illinois the temperature did not reach zero at any station in this district.

Cold waves were neither severe nor pronounced, and there was great irregularity in the time the coldest weather of the month was experienced in the several sections, and, in fact, in localities not far separated. In the main the coldest weather was experienced in the northeastern portion of the district and in Illinois during the period 9th-16th, but over the rest of the district during the period 21st-25th, Christmas morning being the coldest in Ohio, Indiana, and Kentucky.

PRECIPITATION.

The total precipitation for the month exceeded 4 inches over the watershed of the Tennessee River in eastern Tennessee, North Carolina, Georgia, and Alabama, which resulted in a moderate excess over that region. In the main over the rest of the district the precipitation for the month was deficient, the deficiency, however, being small over most of it, although amounting to nearly an inch in portions of Illinois and Indiana. The greatest deficiency was over the Wabash watershed, including its large tributaries, in eastern Illinois, and central and western Indiana, where the total monthly precipitation was less than 2 inches. Over the rest of the Ohio River Basin the monthly precipitation ranged generally between 2 and 4 inches.

Over the northeastern portion of the district, including West Virginia, and nearly all of Ohio, precipitation occurred nearly every day in the month. It was mostly in the form of snow, however, and the daily amounts, except in two or three storm periods, were not large. Over the rest of the district precipitation occurred every day during the first week, although very light during the first three days, and again in the periods 18th-20th, 23d-24th, and 28th-30th. The precipitation at the end of the month was in the form of rain and occurred in considerable amount over the whole district. In the other periods it was generally rain in the southern and snow in the central, northern, and mountain sections. The most striking event of the month in this connection was the remarkably heavy snowfall over Kentucky, the extreme southern portions of Indiana and Ohio, and the eastern sections of the district, which attended the eastward movement of a general low barometric area over the central valleys in the period 4th-6th. Over a great deal of the area mentioned the snowfall amounted to from 4 to 11.5 inches, and for the most part it was the heaviest on record so early in the month.

The snowfall of the month was unusually heavy for December over nearly all the mountain section of the district, and in Pennsylvania, Ohio, Kentucky, and the greater portion of Indiana, but in Illinois the amount was less than usual except in the extreme southern portion. In Tennessee the monthly amounts ranged between a trace and

2.5 inches; in North Carolina between trace and 12 inches; and in northern Georgia and Alabama between trace and 2 inches. Over most of the district the ground was well covered with snow during nearly the whole of the month. The rain and mild weather, however, near the end of the month carried most of it off, so that there was little or none on the ground at the close of the month outside of the mountain sections. The snow on the ground over the headwaters of the Ohio River was greatest in depth about December 12. At 8 a. m. of that day there were from 2 to 6 inches over the Beaver River watershed, 5 to 8 inches over the Allegheny, 6 to 15 inches over the Kiskiminetas, 5 to 12 inches over the Youghiogheny, and 4 to 6 inches over the Monongahela. At the end of the month there remained only 1 or 2 inches over the upper portion of the Allegheny and Kiskiminetas watersheds, and none over the rest of the Ohio River Basin.

MISCELLANEOUS.

The rivers and streams were generally low until the close of the month, when rains and melting snow resulted in a

considerable rise. Navigation was suspended on account of low water over considerable stretches of the Ohio River, particularly in the upper portion, from about the 6th to 26th. There was running ice nearly all the month, being heavy at intervals. An ice gorge formed in the Ohio River at Wolf Creek, Ky., but fortunately it broke on the morning of December 29th, before it had attained any great size. Wolf Creek is the place where the enormous gorge formed last winter. See Monthly Weather Review for January, 1910.

In Ohio stock water was scarce in several of the southeastern counties up to the 23d, largely owing to the ground freezing when dry and remaining frozen.

Rains and melting snows near the end of the month caused a marked rise in the Wabash River and its eastern tributaries, but the flood stage was not reached at any point.

Thunderstorms occurred in the northern portions of Georgia and Alabama on the 5th. On the 23d a wind-storm did some slight damage at Johnson City, Tenn.

Excessive 24-hour precipitation occurred over the headwaters of the Tennessee River in eastern Tennessee and northwestern North Carolina in the period 4th-6th.

TABLE 1.—Climatological data for December, 1910. District No. 3, Ohio Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.			Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeasured.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
<i>New York.</i>																		
Allegany.	Cattaraugus.	1,441	4	21.0	- 5.0	46	28†	- 5	31	43	2.78	- 0.51	0.85	16.3	21	9	7	15 sw. sw. Charles E. Whitney.
Bolivar.	Allegany.	1,500	16	20.4	-	44	28†	- 10	16	40	2.30	-	0.72	25.0	14	2	7	22 sw. sw. B. O. Newton.
Franklinville.	Cattaraugus.	1,583	13															Dr. J. W. Kales.
Olean.	do.	2																John W. Alles.
<i>Pennsylvania.</i>																		
Aleppo.	Green.	1,135	9	26.5		68	30	- 5	10	45	2.40		0.60	14.0	12	5	3	23 sw. J. S. Hinerman.
Baldwin.	Butler.	1,404	4	22.6		46	30	- 2	10	33	6.97		2.00	15.9	16	1	1	30 w. S. H. Templeton.
Claysville.	Washington.	1,127	6	26.4		55	29†	- 2	9	35	2.77	+ 0.23	0.59	14.5	14	9	5	17 w. E. T. Buchanan.
Franklin.	Venango.	955	36	23.8	- 5.3	48	29	- 2	10	29	3.57	+ 0.43	0.63	17.2	17	3	4	22 nw. F. E. Dixon.
Greenville.	Indiana.	950	14	23.6	- 7.4	43	28	- 4	13†	38	3.21	+ 0.42	0.63	17.2	17	3	4	24 nw. A. M. Orr.
Indiana.	Indiana.	1,350	24	24.9	- 5.2	48	29†	- 3	17	37	4.21		0.54	27.3	20	6	9	16 w. Rev. J. M. Welch.
Johnstown.	Cambria.	1,184	24	25.8	- 6.9	47	29	- 2	10	39	3.31	- 0.40	0.52	23.4	23	4	8	19 nw. E. C. Lorentz.
Lydick.	Westmoreland.	1,420	26	26.4	- 5.9	58	29†	- 4	17	37	3.97	+ 0.41	0.98	42.2	19			Murray Forbes.
Pittsburg.	Allegheny.	842	20	27.0	- 6.8	55	29	- 11	16	25	2.87	+ 0.09	0.86	13.0	19	4	7	20 w. U. S. Weather Bureau.
Ssagerstown.	Crawford.	1,116	19	23.6	- 5.2	45	29	- 11	10	43	3.46	+ 0.05	0.34	26.5	23	0	6	25 sw. J. G. Apple.
Skidmore.	Lawrence.	1,000	6	23.3		47	28	- 8	17	38	2.45		0.75	11.0	9	6	2	23 sw. W. H. Stoner.
Somerset.	Somerset.	2,250	54	22.4	- 6.3	48	30	- 10	10†	46	4.41	+ 0.33	1.00	31.5	18	10	21	nw. W. M. Schrock.
Uniontown.	Fayette.	999	23	25.3	- 9.7	53	28	0	10	36	3.62	- 0.14	1.10	18.5	10	2	11	18 sw. Wm. Hunt.
Warren.	Warren.	1,137	21	22.9	- 4.9	45	29†	- 2	10	37	2.74	- 0.64	0.50	23.8	17	4	1	26 Anna Simpson.
<i>Maryland.</i>																		
Deer Park.	Garrett.		16	21.2	- 6.6	56	29	- 14	17	54	3.60	- 0.12	0.00	32.0	11			S. P. Specht.
Grantville.	do.		16	22.2	- 6.8	52	29	- 6	10	39	3.21	- 0.01	0.50	27.0	10	6	9	16 J. S. Miller.
Oakland.	do.		10	22.6*		56	29	- 15	17	54*	2.35		0.45	19.1	15	5*	6	15* w. R. E. Weber.
<i>West Virginia.</i>																		
Bancroft.	Putnam.	6	30.0			65	29	- 9	22	37	2.97		0.72	10.0	13	7	3	21 nw. James Hill.
Buckley.	Raleigh.	2,440	11	28.6	- 4.8	52	29	- 2	22	47	3.65	+ 0.09	0.90	11.0	11	1	1	17 w. John A. Ewart.
Bens Run.	Pleasants.	623	9	28.5	- 4.6	56	28	5	9	31	3.07	- 1.02	0.70	24.0	13	13	8	10 J. D. Riggs.
Bluefield.	Mercer.	2,563	10	30.6	- 4.2	64	29	5	23	38	2.00	- 1.00	0.55	6	0	1	1	31* 0 Norfolk & Western Ry.
Buckhannon.	Upshur.	1,472	20	27.6	- 5.7	62	29	0	22	40	2.67	- 1.48	0.80	16.0	11	8	1	22 Van A. Zevely.
Cairo.	Ritchie.	667	8	28.7		55	28†	- 5	9	39	2.24	- 1.14	0.64	12.8	9	6	6	18 G. W. Sherwood.
Central Station.	Doddridge.	900	11	26.2	- 7.1	60	29	- 7	22	40	2.60	- 1.44	0.60	14.0	7	4	6	R. C. Hewes.
Charleston.	Kanawha.	598	24	34.0		68	29	15	22	34	3.21	+ 0.09	0.74	12.5	13	4	3	24 w. J. M. Reed.
Creston.	Wirt.	612	10	29.8		60	29	3	9	31	2.96	+ 0.32	0.90	13.5	11	4	6	21 nw. C. T. Perry.
Cuba.	Jackson.	544	9	29.6		62	29	- 6	9	35	2.86	- 0.71	1.10	9.5	12	12	0	19 w. J. J. Lincoln.
Elkhorn.	McDowell.	1,933	18	32.6	- 4.9	65	29	6	23	37	2.45	- 0.70	0.63	23.1	21	4	6	21 w. U. S. Weather Bureau.
Elkins.	Randolph.	1,940	21	29.9	- 4.1	61	29	- 1	17	42	2.72	- 0.70	0.63	14.0	15			H. Glenn Fleming.
Fairmont.	Marion.	879	18	28.1		64	29	- 4	22	44	2.55	- 0.88	0.60	14.0	15			John Holt.
Glenville.	Gilmer.	738	22	31.1	- 3.7	65	29	- 2	2	9	3.28	- 0.42	0.83	12.0	12	6	1	24 nw. John W. Snider.
Grafton.	Taylor.	988	18	27.9	- 6.2	65	29	- 2	9	44	3.94	+ 0.50	0.67	18.5	13	11	2	18 w. Arthur George.
Green Sulphur Springs.	Summers.	1,600	14	29.2	- 4.7	64	29	3	22	38	1.99	- 0.49	0.44	6.2	14	8	3	20 w. J. B. Lavender, C. E. L. H. Hutchinson.
Hinton.	do.	1,400	21	29.6	- 6.6	65	29	- 9	22	37	2.23	- 0.51	1.06	3.7	13	12	0	19 w. Allen Smith.
Huntington.	Cabell.	510	15	29.8	- 4.6	64	29	10	24†	34	3.10	- 0.17	1.50	15.3	9	7	4	20 w. S. E. Bradley.
Lewisburg.	Greenbrier.	2,200	10	26.3	- 6.4	57	29	0	14	36	2.18	- 0.73	0.80	8.2	7	12	8	12 w. Jas. A. Morgan.
Logan.	Logan.	665	8	35.4†		72	29	- 13	22	35	4.30	- 1.59	0.62	9.2	12	8	2	21 w. C. J. McCarty.
Lost Creek.	Harrison.	1,033	14	28.4	- 5.1	64	29	- 5	9	43	2.04	- 1.59	0.60	9.2	12	8	2	21 w. Horace Atwood.
Madison.	Boone.	704	5	29.4		62	29	- 11 ^b	15	33	1.55	- 0.30	0.60	6.5	9	3	0	23 w. J. E. Matthews.
Mannington.	Marion.	967	7	27.2		62	29	- 8	9	45	2.59	- 0.69	1.41	20	8	1	1	22 w. Frank S. Evans.
Marlinton.	Pocahontas.	2,169	11	22.6	- 6.8	48	29	- 8	14	40	3.63	+ 0.63	1.00	15.0	9	13	3	15 w. Wm. Ankron.
Morgantown.	Monongalia.	1,250	36	28.4		60	29	4	9	36	2.13	- 1.09	0.80	20.0	11	11	2	18 s. Miss Donna Tully.
Moundsville.	Marshall.	640	8	28.4		58	29	- 1	9	36	2.37	- 0.55	0.65	16.0	15	11	2	18 w. U. S. Weather Bureau.
New Cumberland.	Hancock.	987	10	25.0	- 5.8	52	29	- 1	17	34	2.60	+ 0.26	0.55	16.0	15	11	2	18 w. J. W. Swisher.
New Martinsville.	Wetzel.	634	17	29.2	- 5.8	55	28	1	9	33	2.92	- 0.53	0.80	9	9	4	18 w. J. D. Dadisman.	
Nuttallburg.	Fayette.	2,253	23	30.0†	- 4.6	61	29	12	22†	31	1.75	- 1.18	1.18	17.0	14			Dr. J. L. Cunningham.
Parkersburg.	Wood.	638	23	28.4	- 6.9	61	29	1	9	33	2.34	- 0.57	1.00	19.8	14	3	2	26 w. W. V. Senter.
Parsons.	Tucker.	1,602	21	25.8	- 5.9	62	29	- 5	10†	44	5.15	+ 1.28	1.30	38.0	14	5	11	15 w. D. W. Holmes.
Philippi.	Barbour.	1,192	18	27.8	- 5.4	65	29	- 5	9†	44	2.24	- 1.08	0.32	12.6	19	3	18 w. Morris Hansford.	
Pickens.	Randolph.	2,785	20	24.4	- 8.3	56	29	0	12	42	6.90	+ 1.93	1.80	51.0	18	7	4	30 w. Scott.
Pineville.	Wyoming.	553	21	30.2	- 5.2	61	29	1	9	31	4.03	+ 1.03	1.80	19.0	13	8	2	21 sw. E. E. Turley.
Point Pleasant.	Mason.	904	14	32.2	- 3.6	66	29	7	23	33	3.35	+ 0.46	0.86	12.0	13	5	19	7 w. W. D. Holmes.
Powellton.	Fayette.	2,469	10	26.8		58	29	0	22	38	4.25	- 0.83	1.00	15.0	10	3	0	25 w. Morris Hansford.
Princeton.	Robertsville.	1	28.1			64	29	3	9	37	3.28	- 0.83	0.80	10.0	10	6	0	25 w. E. E. Turley.
Robertsville.	Roane.	639	7	29.6		66	29	- 4	22	44	2.99	- 0.80	0.80	19.5	16	5	2	24 w. Wm. E. Ryan.
Ryan.	Wetzel.	6	25.9			60	29	0	9	36	2.01	- 0.45	18.0	16	2	5	24 w. G. M. Whisler.	
Spencer.	Roane.	710	7	27.5		62	29	- 5	22	45	3.35	+ 0.38	0.85	16.0	13	0	16	w. A. M. McKown.
Sutton.	Braxton.	5	30.7			67	29	5	21	44	1.77	- 0.50	0.50	10.0	8	3	8	20 w. J. E. Baughman.
Terra Alta.	Preston.	3,207	10	26.2		60	29	2	14	40	3.38	- 0.98	1.11	21				C. F. Dodge.
Union.	Monroe.																Shelton Clark.	
Valley Fork.	Clay.																Miss Blanche Pierson.	
Webster Springs.	Webster.	1,500	7								1.15	- 0.35	6.5	4	2	19	9	C. H. Hamrick.
Wellsburg.	Brooke.	1,225	10	26.0	- 4.5	51	28	5	17	23	2.37	- 0.76	0.50	15.7	14	5	10	16 w. C. W. Courtright.
Weston.	Lewis.	824	21	25.8†		60 ^b	28	0	9†	34 ^b	2.50	- 1.35	0.50	18.0	15	5</td		

TABLE 1.—*Climatological data for December, 1910. District No. 3—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, .01 inch or more.	Number of part. cloudy days.	Number of clear days.	Prevailing wind direction.		
<i>Ohio—Continued.</i>																				
Gratiot §.	Licking.	1,000	21	5.4	— 6.7	53	28	3	22	31	2.43	— 0.60	0.70	8.0	10	5	6	20	w.	
Green.	Adams.	500	17	30.2	— 5.0	58	28	4	9	28	2.15	— 1.07	1.00	12.7	7	4	12	15	sw.	
Green Hill.	Columbiana.	1,135	18	22.9	— 6.0	49	28	7	17	39	2.07	— 0.56	0.59	9.2	15	7	8	16	sw.	
Greenville.	Darke.	1,060	24	25.3	— 5.5	51	28	2	25	24	2.41	— 0.06	0.82	7.0	8	5	14	12	w.	
Hillsboro.	Highland.	1,063	31	27.6	— 6.0	54	28	10	9†	24	2.36	+ 0.18	1.56	12.7	14	6	8	17	sw.	
Ironton.	Lawrence.	575	27	30.8	— 4.5	63	29	5	9	33	2.21	+ 0.38	1.15	15.9	10	7	7	17	sw.	
Jacksonburg.	Butler.	975	42	26.0	— 5.7	53	28	5	25	31	2.97	+ 0.05	1.15	16.0	8	13	0	18	nw.	
Kenton.	Hardin.	1,015	18	23.0	— 8.7	48	28	0	9†	29	2.50	+ 0.07	0.85	9.0	7	7	3	21	sw.	
Killbuck.	Holmes.	1,087	18	Fairfield.	27.8	— 4.5	52	28	10	9	26	1.90	— 1.25	0.80	3.0	8	10	2	19	sw.
McConnelsville.	Morgan.	710	26	— 6.5	50	28	0	22	33	2.47	— 0.47	0.76	12.5	15	5	8	20	w.		
Marietta.	Washington.	627	90	29.3	— 5.0	55	28†	1	9	32	2.27	— 0.16	1.00	16.1	14	5	6	20	w.	
Marion.	Marion.	980	32	25.6	— 5.3	48	28	5	9	23	2.56	— 0.07	0.75	9.6	10	4	8	19	sw.	
Milfordton.	Knox.	1,200	18	24.2	— 4.5	49	28	4	9	28	1.86	— 1.09	0.65	7.0	9	10	7	14	sw.	
Milligan §.	Perry.	875	17	25.8	— 9.1	53	28	— 4	4	13	2.57	— 0.37	0.79	6.5	10	6	6	19	sw.	
Millport.	Columbiana.	1,145	18	23.6	— 5.1	48	28	— 7	17	39	2.25	— 0.54	0.48	10.0	16	2	9	20	w.	
Nellie.	Coshocton.	850	10	24.5	— 5.0	54	28†	1	22	32	2.42	— 0.41	0.60	8.0	10	9	5	17	w.	
New Alexandria.	Jefferson.	1,050	25	25.4	— 7.1	52	29	2	21	35	2.80	— 0.52	0.60	16.0	10	10	1	20	w.	
New Berlin.	Stark.	1,100	18	24.4	— 5.8	48	29	— 5	10†	32	2.97	+ 0.44	0.95	11.0	14	6	2	23	w.	
New Waterford.	Columbiana.	1,053	16	23.9	— 5.9	51	28	5	17	35	1.35	— 2.12	0.40	9.0	8	17	0	14	sw.	
Ohio State University.	Franklin.	757	27	26.2	— 5.4	52	28	7	9	23	1.99	— 0.58	0.66	4.4	9	8	19	sw.		
Pataskala.	Licking.	1,015	18	25.2	— 5.4	53	28	4	9	29	2.26	— 1.00	0.62	8.0	12	4	7	20	w.	
Peebles.	Adams.	645	27	21.1	— 5.2	59	27†	— 6	9	43	2.48	— 0.26	1.13	9.0	6	9	7	15	nw.	
Philo (1).	Muskingum.	1,018	15	26.2	— 5.2	55	28	8	21	27	2.47	+ 0.05	0.70	9.5	11	6	3	22	se.	
Piqua.	Miami.	847	2	25.4	— 5.4	50	28	2	13	23	2.49	— 0.48	1.60	6.3	—	6	3	2	nw.	
Plattsburgh.	Clarke.	1,130	17	25.4	— 5.4	50	28	— 7	9	26	3.33	— 0.03	1.45	8.5	10	3	2	26	w.	
Prospect.	Scioto.	527	79	29.9	— 6.9	60	29	7	9	26	3.33	— 0.03	1.45	8.5	10	3	2	26	w.	
Rittman.	Wayne.	890	18	27.14	— 2.2	40	28	— 1	16	36*	1.33	— 1.24	0.88	8.6	10	9	2	20	n.	
Shenandoah §.	Richland.	1,100	18	22.4	— 6.4	48	28	1	10†	27	2.15	— 0.30	0.58	11.5	13	3	11	17	sw.	
Sidney.	Shelby.	985	27	26.0	— 5.1	49	28	0	25	31	2.40	— 0.29	0.72	9.5	9	10	4	17	s.	
Somerset.	Perry.	1,080	11	25.8	— 5.2	55	28	9	21	31	1.63	— 0.95	0.42	7.0	14	8	7	16	w.	
Springfield.	Clarke.	980	16	25.8	— 5.2	55	28	— 3	9	35	2.83	— 0.34	0.67	11	7	17	7	sw.		
Summerfield.	Noble.	1,187	4	25.8	— 5.4	50	28	— 3	9	35	2.83	— 0.48	1.05	13.0	7	5	12	14	nw.	
Syracuse.	Meigs.	533	29	29.8	— 6.0	60	29	3	9	34	2.65	— 0.90	14.0	14	3	7	21	nw.		
Thurman.	Gallia.	896	17	30.0	— 5.1	59	29	7	17	30	3.95	+ 1.13	1.10	22.0	7	5	8	18	w.	
Urbana.	Champaign.	1,031	40	24.5	— 5.1	52	28	— 4	25	29	2.29	— 0.74	0.55	14.2	9	4	12	15	w.	
Warren.	Trumbull.	900	21	24.6	— 5.2	47	28	1	17	35	3.77	+ 0.69	0.60	26.9	17	3	8	20	sw.	
Waverly.	Pike.	590	27	27.6	— 6.6	56	28	3	9	34	2.88	— 0.08	0.95	12.3	9	10	2	19	n.	
Waynesville.	Warren.	700	25	26.7	— 4.3	53	28	6	12	26	2.02	— 0.70	0.70	8.7	8	7	8	16	sw.	
Wooster.	Wayne.	1,030	30	24.4	— 6.4	49	28	0	22	35	2.29	— 0.37	0.63	7.2	15	0	4	27	nw.	
Youngstown.	Mahoning.	846	18	25.0	— 5.3	56	28	— 4	12	36	2.71	+ 2.39	0.90	32.0	16	19	0	12	w.	
Zanesville.	Muskingum.	700	23	—	—	—	—	—	—	2.31	— 0.37	0.94	6.3	10	8	0	23	s.		
<i>Virginia.</i>																				
Big Stone Gap.	Wise.	1,540	20	32.4	— 3.6	63	29	12	22	31	3.90	+ 0.12	0.90	4.5	9	8	4	19	w.	
Blacksburg.	Montgomery.	2,170	20	—	—	—	—	—	—	—	3.70	—	—	0.8	6	24	1	6	se.	
Burkes Garden.	Tazewell.	3,250	16	25.6	— 6.4	58	29	— 9	22	48	3.85	— 0.06	1.45	9.0	8	8	1	22	sw.	
Elk Knob.	Lee.	3,243	8	30.6	— 6.2	62	29	10	21	26	4.34	—	1.19	5.0	15	10	4	17	nw.	
Galax.	Grayson.	2,300	1	30.0	— 5.7	59	29	8	14†	39	1.43	—	0.50	3.0	4	11	2	18	nw.	
Ivanhoe §§.	Wythe.	1,028	7	29.6	—	54	29	12	14†	32	2.64	—	0.82	4.6	12	11	13	7	w.	
Lebanon.	Russell.	1,211	1	32.0	—	64	29	2	22	41	3.63	—	0.84	10.0	11	9	4	18	sw.	
Marion.	Smyth.	2,224	16	30.0	— 6.5	66	29	2	22	37	3.05	— 0.07	0.71	11.0	13	8	11	12	w.	
Max Meadows.	Wise.	2,028	15	30.6	— 5.3	65	29	9	22	32	1.57	— 1.79	0.70	1.5	8	12	6	13	w.	
Mendota §§.	Washington.	1,350	2	—	—	—	—	—	—	3.88	—	—	1.20	4.3	10	—	—	se.		
Radford §§.	Montgomery.	1,773	2	—	—	—	—	—	—	1.48	—	—	0.44	6.0	7	—	—	sw.		
Ferry §§.	Scott.	2,121	14	—	—	—	—	—	—	3.72	— 1.04	1.10	1.0	1.0	7	—	—	se.		
Wytheville.	Wythe.	2,293	17	30.0	— 5.3	61	29	9	22	32	1.62	— 1.62	1.12	4.6	11	8	12	11	w.	
<i>North Carolina.</i>																				
Altapass.	Mitchell.	2,629	—	—	—	—	—	—	—	—	3.70	—	—	1.70	0.8	6	24	1	6	
Andrews.	Cherokee.	1,800	35.0	—	—	—	—	—	—	—	6.05	—	—	2.27	T.	13	12	11	8	
Asheville.	Buncombe.	2,250	31	32.9	— 4.9	58	29	10	22	32	4.48	— 1.58	1.11	1.8	9	12	11	8	nw.	
Banners Elk.	Watauga.	3,750	2	27.4	—	53	29	0	22	39	4.40	—	1.00	12.0	10	12	8	11	w.	
Brevard.	Transylvania.	2,230	9	30.8	—	56	15	7	14	43	5.90	+ 1.63	2.25	3.3	10	5	15	2	n.	
Bryson City.	Jackson.	2,100	33.2	—	—	58	28†	5	21	40	4.33	— 0.58	2.67	1.3	10	13	4	14	sw.	
Hendersonville.	Henderson.	2,167	14	34.0	— 4.6	57	27†	10	37	37	5.05	— 0.58	1.90	T.	8	19	6	16	nw.	
Highlands.	Macon.	3,670	20	30.4	— 4.9	52	10	6	21	34	6.09	— 0.77	3.74	0.5	18	4	9	9	dw.	
Hot Springs.	Madison.	1,326	12	35.8	— 6.2	70	29	12	14	36	2.41	—	1.18	7	12	11	8	13	w.	
Jefferson.	Ashe.	2,900	3	31.6	—	56	28†	11	21	36	2.58	—	0.75	2.3	7	7	2	22	w.	
Marshall.	Madison.	1,646	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	se.	
Murphy.	Cherokee.	1,614	34	—	—	—	—	—	—	—	6.43	+ 1.22	3.35	2.5	8	—	—	—	sw.	
Rock House.	Macon.	3,100	18	33.4	— 6.5	64	27	10	21	36	6.90	— 0.27	3.55	0.6	8	16	9	6	nw.	
Waynesville.	Haywood.	2,756	16	32.0	— 6.4	58	29	1	21	44	7.36	— 0.05	1.50	0	6	9	1	21	sw.	
<i>Georgia.</i>																				
Diamond.	Gilmer.	2,020	20	36.4	— 5.2	60	29	14	14†	36	6.00	+ 0.51	3.10	T.	9	12	6	13	sw.	
Lafayette.	Walker.	871	4	36.3	—	63	28	12	21	38	2.35	—	1.15	2.0	5	15	4	2	se.	
<i>Alabama.</i>																				

TABLE 1.—Climatological data for December, 1910. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.			
<i>Tennessee—Continued.</i>																			
Clarksville.	Montgomery.	520	47	36.5	— 3.9	61	29	16	21	33	3.13	— 1.36	1.01	3.0	7	14	6	11	
Clinton.	Anderson.	22	6					5.23	+ 0.75	1.55	3.0	14	11	0	20	nw.	John Thompson.		
Dandridge.	Jefferson.										4.30	— 1.19	1.80	3.0	11	15	0	16	
Decatur.	Meigs.	850	14	34.0	— 5.8	63	28	9	14	39	4.55	+ 1.19	4.40	0.8	13	10	6	15	
Dickson.	Dickson.	800	14	35.8	— 2.3	59	27	10	21	33	3.09	— 1.21	1.72	2.5	5	10	8	13	
Dover.	Stewart.			35.8	— 3.7	62	28	11	21	39	3.66	— 0.64	1.37	2.0	4	13	5	s.	
Dunlap.	Sequatchee.	726	1	36.2		65	29	11	14	42	5.15		3.30	T.	8	10	8	13	
Elizabethton.	Carter.	1,575	20								3.40	+ 0.10	2.0	8	16	1	14		
Eramus.	Cumberland.	1,850	13	31.3	— 4.6	62	29	1	21	41	3.62	+ 2.03	1.50	0.7	13	4	13	14	
Florence.	Rutherford.	560	28	36.2	— 4.6	62	28	13	25	33	4.08	+ 0.15	1.50	1.0	6	12	7	12	
Franklin.	Williamson.	655	20	34.6	— 5.4	64	28	15	21	35	3.95	— 0.47	1.52	7	11	4	16		
Hall's Hill.	Rutherford.	8									3.19		1.10	1.0	6	13	0	18	
Harriman.	Roane.	841	15	33.8	— 5.0	65	29	13	14	38	3.71	— 0.95	1.82	1.0	7	7	15	9	
Hohenwald.	Lewis.	983	24	35.5	— 4.0	62	27	10	21	35	4.68	— 0.42	1.70	T.	7	12	9	10	
Iron City.	Lawrence.	13	36.8	— 3.6	64	28	10	21	31	3.48	+ 2.41	1.33	1.3	7	3	23	5	sw.	
Jefferson City.	Jefferson.										4.39		2.55	2.5	9				
Johnson City.	Washington.										2.85		1.17	1.8	9	12	6	13	
Johnsonville.	Humphreys.	364	14	35.8	— 3.8	61	28	10	21	38	4.23	— 0.0	1.40	0.5	10	9	6	w.	
Kingston.	Roane.	19									4.13	+ 0.08	1.24	1.0	9	13	0	18	
Knoxville.	Knox.	977	39	34.4	— 5.3	66	29	17	21	26	4.94	+ 0.78	3.04	1.7	10	5	6	ne.	
Lebanon.	Wilson.	522	1	35.0		63	28	9	21	39	3.31		1.17	1.0	5	6	9	16	
Lewisburg.	Marshall.	727	15	36.3	— 5.0	63	28	9	21	38	3.94	— 0.47	1.41	1.3	6	9	3	s.	
Livingston.	Overton.			33.8		63	28	9	21	34									
Loudon.	Loudon.	816	7								5.05	+ 1.00	2.04	T.	8	10	3	12	
Lynville.	Giles.	770	22	34.8	— 6.2	73	27	14	21	35	3.81	— 0.80	1.44	2.0	6	7	15	9	
McGhee.	Monroe.	6									5.38		2.20	1.7	10	8	0	13	
McMinnville.	Warren.	1,011	26	35.4	— 5.4	65	29	10	21	34	3.60	— 0.85	1.50	2.6	13	0	12	s.	
Maryville.	Blount.	1,050	14	34.4	— 5.5	65	29	11	21	32	5.19	+ 0.18	2.83	2.2	11	8	11	nw.	
Mountain City.	Johnson.	2,486	13	31.0	— 3.0	62	29	— 3	21	49	2.75	+ 1.42	0.80	4.0	10	9	14	8	
Nashville.	Davidson.	654	39	36.0	— 5.1	65	29	14	25	29	3.92	+ 0.10	1.74	2.0	7	7	10	w.	
Newport.	Cocke.	1,280	20	33.9	— 4.7	68	29	14	14	33	3.96	+ 0.39			10	7	14		
New River.	Scott.	1,215	3								3.30		1.10		5	17	0	14	
Palmetto.	Bedford.	770	17	36.0	— 5.2	62	28	12	21	33	2.34	— 2.35	1.30	1.0	7	9	12	s.	
Pinewood.	Hickman.	3	35.8	— 6.4		63	27	7	21	43	3.19		1.15	T.	5	11	6	14	
Pope.	Perry.			33.6	— 6.5	65	27	5	13	43					17	10	4	n.	
Rogersville.	Hawkins.	1,150	25	32.7	— 5.2	66	29	10	14	36	2.98	— 0.68	1.58	1.0	9	11	5	15	
Rugby.	Morgan.	1,410	22	32.8	— 4.6	62	29	3	21	43	4.54	+ 0.17	2.47	T.	6	8	5	13	
Savannah.	Hardin.	442	26	40.6	— 1.3	66	17	14	22	40	4.05	— 0.59	1.75						
Sevierville.	Sevier.	4		34.0		68	29	10	14	45	4.58		2.35	1.5	11	7	5	19	
Sewanee.	Franklin.	2,000	14	36.8	— 1.4	63	18	9	21	27	5.42	+ 0.71	0.73	0.2	3	13	8	10	
Sparta.	White.	920	4	35.6		66	29	10	21	37								w.	
Springdale.	Claiborne.	1,058	20								3.98	— 1.16	3.10	2.0	4	7	12	13	
Springville.	Henry.	377	7	35.0		61	28	10	21	39	3.58		1.21	2.5	3	17	4	10	
Tazewell.	Claiborne.	13									4.11	— 0.60	1.61	2.0	8	12	1	18	
Tullahoma.	Coffee.	1,075	22	35.6	— 4.1	63	29	12	14	36	3.89	— 1.60	1.50	T.	13	5	16	e.	
Walling.	White.	909	7								3.92		1.50	T.	9	9	4	18	
Waynesboro.	Wayne.	753	24	37.1	— 3.7	63	28	11	21	36	4.52	+ 0.22	1.80	3.0	7	7	9	15	
Wildersville.	Henderson.	13	36.2	— 4.2	61	28	20	10	17	35	4.16	— 0.91	1.70	0.5	6	12	7	12	
Worsham.	Sumner.	9									4.15		1.30	1.0	8	11	4	16	
Yukon.	Lincoln.	850	13	36.2	— 4.7	68	28	12	13	30	3.98	— 1.16	3.10	2.0	4	7	12	w.	
<i>Kentucky—Continued.</i>																			
Alpha.	Clinton.			35.6	— 4.7	56	28	10	25	34	3.47	— 1.24	1.27	T.	5	12	4	15	
Anchorage.	Jefferson.	700	10	27.8	— 5.0	56	28	— 3	25	44	3.54	+ 0.26	0.06	9.0	5	13	8	nw.	
Bardstown.	Nelson.	637	14	31.2	— 5.0	57	28	4	25	34	4.22	+ 0.25	1.14	11.5	11	12	0	19	
Beattyville.	Lee.	650	7	30.2		63	29	8	21	44	3.92		0.84	14.0	13	6	11	14	
Beaver Dam.	Ohio.	441	8	31.0		60	28	5	9	43	3.19		0.90	9.0	6	11	0	20	
Berea.	Madison.	1,070	10	31.5	— 4.4	61	29	11	14	34	3.08	— 0.93	1.10	8.0	12	9	9	13	
Bowling Green.	Warren.	500	22	33.2	— 5.1	58	28	5	25	35	3.12	— 1.05	0.97	5.8	8	13	1	17	
Burnside.	Pulaski.	773	20								3.90	— 0.15	0.94		7	11	5	15	
Cadiz.	Trigg.	8																	
Calhoun.	McLean.	397	8	33.7		60	28	12	21	35	3.59		1.79	6.2	6	9	13	9	
Catieburg.	Boyd.	544	22								3.48	+ 0.09	1.06	14.0	14	11	3	18	
Earlington.	Hopkins.	370	21	31.9	— 7.3	62	28	11	21	35	2.61	— 1.25	0.87	4.0	5	14	5	n.	
Edmonton.	Metcalfe.	600	20	32.0	— 5.6	60	29	3	25	35	3.27	+ 1.00	0.80	3.1	9	8	15	w.	
Eubank.	Falmouth.	1,177	17	32.1	— 3.6	60	29	10	21	33	2.97	— 0.15	0.80	0.6	9	6	5	20	
Farmers.	Pendleton.	530	22								3.84	+ 0.73	1.19	14.0	10	12	2	19	
Frankfort.	Rowan.	668	6	39.8		61	29	4	14	40	3.09		0.65	11.0	12	4	9	w.	
Franklin.	Franklin.	560	20	29.6	— 8.1	50	27	7	25	34	2.14	— 1.22	0.53	7.2	12	11	5	15	
Franklin.	Simpson.	891	18	34.0	— 5.8	58	29	10	25	33	3.89	— 0.28	1.71	2.5	5	17	9	s.	
Greensburg.	Green.	581	18	30.4	— 6.0	60	29	3	25	42	2.97	— 1.08	0.99	4.5	11	12	0	19	
High Bridge.	Jessamine.	762	8								3.07		0.95	4.3	11	7	1	13	
Hopkinsville.	Christian.	524	15	34.6	— 2.8	60	28	13	21	31	3.12	— 1.39	1.10	3.0	5	18	0	13	
Irvington.	Breckinridge.	13	31.6	— 3.8	58	28	7	25	35	3.26	— 0.54	1.85	6.0	5	16	1	14		
Letchfield.	Grayson.	635	23	30.8	— 4.7	57	28	4	25	33	3.70	— 0.56	1.60	12.5	4	12</td			

TABLE 1.—Climatological data for December, 1910. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, .10 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
<i>Indiana—Continued.</i>																				
Cambridge City	Wayne.	941	19	25.3	- 4.1	53	28	- 10	25	44	2.59	- 0.27	0.67	8.3	9	8	0	23	w.	Chas. Lemberger.
Columbus	Bartholomew.	632	27	27.3	- 5.3	56	28	- 1	25	36	2.00	- 0.81	0.44	7.5	9	12	2	17	sw.	John A. Perry.
Connersville	Fayette.	769	28	27.2	- 4.5	64	28	- 3	25	27	1.71	- 1.07	0.55	2.3	6	9	11	11	w.	H. T. Swindler.
Delphi	Carroll.	668	25	24.1	- 4.0	42	27	5	25 [†]	35	2.18	- 0.32	1.25	9.0	9	7	8	18	.....	L. A. Higginbotham.
Eminence	Morgan.	782	5	26.0 ^b	- 3.9	50	28	0	25	1.47	.....	0.53	4.3	6	15 ^b	10 ^b	4 ^b	nw.	E. E. Kelso, M. D.	
Evansville	Vanderburgh.	386	34	32.5	- 3.9	57	28	15	24	28	2.94	- 0.89	1.44	6.0	6	10	15	6	nw.	U. S. Weather Bureau.
Farmersburg	Sullivan.	12	28	24.4	- 3.0	49	28	7	21	32	0.58	- 2.28	0.25	3.5	5	5	21	9	s.	Maurice Yeager.
Farmland	Randolph.	1,101	28	27.0	- 4.9	47	27	0	25	35	2.08	- 0.59	0.55	8.5	8	5	22	9	se.	W. J. Davison.
Greenland	Hancock.	905	7	27.5	- 5.0	50	28	1	25	27	1.79	- 1.04	0.57	7	0	2	5	21	s.	Prof. W. C. Goble.
Greensburg	Decatur.	954	14	27.1	- 3.6	53	28	4	25	27	1.68	- 1.25	0.74	8.0	5	12	11	8	sw.	Chas. H. Ewing.
Huntingburg	Dubois.	2	30.8	- 3.3	57	28	9	25	29	2.49	- 1.30	3	.....	3	.....	.....	.....	.....	.....	H. Dufendach.
Huntington	Huntington.	741	17	25.2	- 3.3	43	18	4	25	27	2.18	- 0.61	1.00	9.3	12	9	3	19	sw.	Chas. McGrew.
Indianapolis	Marion.	822	39	27.0	- 5.6	50	28	8	12	23	1.73	- 1.31	0.65	4.0	9	7	8	16	s.	Section Center.
Jeffersonville	Clark.	455	28	30.6	- 6.2	57	28	9	25	25	3.19	- 0.21	1.03	6.0	10	7	14	.....	John C. Loomis.	
Judyville	Warren.	3	24.4	- 4.9	45	17	- 3	8	34	1.32	- 0.40	1.2	9	9	4	18	.....	Dale R. Warrick.		
Kokomo	Howard.	840	18	24.8	- 4.9	44	28	- 2	25	25	1.38	- 0.93	1.00	1.8	4	5	6	20	nw.	P. H. Robertson.
Lafayette	Tipppecanoe.	617	31	24.6	- 4.7	44	28 [†]	3	12	34	1.82	- 0.76	1.25	3.0	6	8	2	21	s.	Wm. J. Jones, Jr.
Logansport	Cass.	620	30	25.8	- 4.5	45	31	5	25	26	2.16	- 0.42	1.20	5.8	9	11	1	19	e.	Chas. Massena.
Madison	Jefferson.	460	18	30.4	- 4.4	50	28	6	25	27	2.87	- 0.48	1.09	6.6	8	13	7	11	sw.	Dr. J. Cooperider.
Marengo	Crawford.	363	28	28.7	- 3.3	50	28	3	25	30	3.09	- 1.13	0.95	12.4	8	12	11	8	w.	J. M. Johnson.
Marion	Grant.	814	24	24.9	- 4.8	43	28	3	25	25	2.23	- 0.25	0.95	10.4	10	10	6	16	sw.	James F. Hood.
Markle	Huntington.	814	15	23.5	- 3.8	42	28	- 2	25	35	2.10	- 0.33	0.50	10.0	6	9	6	16	sw.	I. S. Shideler.
Maury	Rush.	980	30	25.6	- 4.2	52	28	- 5	25	31	1.92	- 1.13	0.50	10.2	9	8	9	14	sw.	Elwood Kirkwood.
Monticello	White.	674	.....	.....	.....	.....	.....	.....	.....	1.32	.....	1.03	0.5	6	17	7	7	.....	.....	J. E. Loughey.
Moore Hill	Dearborn.	9	27.2	- 3.3	54	28	5	25	28	2.16	- 0.70	10.2	9	11	1	19	.....	.....	W. S. Bigney.	
Mount Vernon	Posey.	410	24	32.4	- 3.3	61	28	12	21	32	2.36	+ 0.09	0.95	5.0	6	16	3	12	nw.	Chas. M. Spencer.
Paoli	Orange.	611	13	29.2	- 3.5	58	28	2	25	30	2.41	- 1.26	0.96	6.0	6	10	12	9	nw.	James A. Gillum.
Princeton	Gibson.	481	23	31.0	- 3.9	55	28	10	25 [†]	31	2.10	- 0.91	1.40	4.5	4	4	8	.....	Walter Vossler.	
Richmond	Wayne.	972	25	25.8	- 4.6	51	28	- 8	25	30	1.79	- 0.88	0.70	6.4	7	4	16	11	.....	G. P. Keith.
Rochester	Fulton.	775	25	25.6	- 5.0	41	15	5	25	24	2.08	- 1.48	0.95	5.5	9	3	19	.....	Dr. W. N. Wirt.	
Rockville	Parke.	722	24	26.0	- 5.4	48	28	5	25	36	2.23	- 1.39	0.53	2.0	5	12	3	16	nw.	Adam Anspach.
Rome	Perry.	370	7	32.0	- 4.0	57	28	7	25	36	2.08	- 0.92	0.85	5.3	7	9	14	8	w.	Chas. V. Skinner.
Salamonia	Jay.	5	24.4	- 4.6	46	28	- 8	25	29	1.03	- 0.64	0.54	6.5	9	5	0	26	.....	Emmet S. Allen.	
Salem	Washington.	717	17	28.1	- 4.7	55	28	0	25	27	2.43	- 1.06	0.88	4.0	5	11	9	11	nw.	Frank H. Park.
Scottsburg	Scott.	570	16	30.8	- 3.8	58	28	8	25	24	2.50	- 0.82	1.39	5.5	6	6	12	13	w.	J. Robt. Blair.
Seymour	Jackson.	610	23	29.6	- 4.5	58	28	7	25	30	2.17	- 0.92	0.85	5.3	7	9	14	8	w.	Edgar G. Hodson.
Shelbyville	Shelby.	6	26.4	- 4.6	52	28	- 6	25	29	1.61	- 0.42	1.36	0.68	3.7	6	4	17	10	nw.	Prof. R. G. Gillum.
Terre Haute	Vigo.	498	20	29.0	- 4.6	51	28	10	12	25	2.21	- 0.42	1.30	2.0	7	18	2	11	nw.	L. A. Culver, Jr.
Veiversburg	Fountain.	612	12	27.0	- 3.0	48	28	4	12	30	1.57	- 0.42	0.90	1.5	7	13	6	12	se.	Miss Frederica Boerner.
Vevay	Switzerland.	525	29	30.6	- 5.3	55	28	5	25	25	2.50	- 0.52	1.50	9.0	5	8	7	16	nw.	Garrett V. List.
Vincennes	Knox.	431	18	29.8	- 3.0	52	28	9	21	32	2.40	- 0.86	0.70	1.0	5	14	3	14	w.	John T. Harris.
Washington	Davies.	484	14	25.4 ^b	- 7.3	57	28	5	24	46	1.76	- 0.65	0.53	5.3	4	14 ^c	0	15 ^c	n.	Clyde O. Laughner.
Whitestown	Boone.	2	24.8	- 4.8	45	28 [†]	5	12	27	1.68	- 0.85	0.58	5.0	7	8	15	8	sw.	Rev. Albert A. Young.	
Winona Lake	Kosciusko.	3	24.6	- 4.0	42	27 [†]	2	9	26	2.12	- 1.14	12.8	13	2	15	14	14	sw.	D. W. Soliday.	
Worthington	Greene.	526	28	28.5	- 4.4	50	28	5	25	28	2.00	- 1.20	0.90	5.0	7	5	18	8	nw.	B. F. Michels.
<i>Illinois</i>	Edwards.	531	19	29.6	- 3.9	54	28	9	21	30	1.79	- 1.44	0.80	1.0	5	17	1	13	nw.	Jacob B. Daisy.
Charleston	Coles.	720	25	27.4	- 4.7	48	17 [†]	5	21	30	1.14	- 1.24	0.60	1.8	5	13	6	12	nw.	A. T. Lemon.
Danville	Vermilion.	604	9	27.9	- 3.9	50	28	6	12	28	1.61	- 0.43	1.13	1.4	7	17	4	10	w.	Dr. L. W. Gordon.
Equality	Gallatin.	421	12	33.0	- 3.1	60	28	10	8 [†]	34	3.05	- 0.90	0.76	9.0	7	17	4	10	nw.	Geo. A. Tromly.
Fairfield	Wayne.	485	17	29.6	- 4.2	54	28	8	21	30	1.91	- 1.49	0.63	T.	3	21	0	10	nw.	Jos. S. Peak.
Flora	Clay.	495	24	30.8	- 3.0	52	28	8	21	33	1.27	- 1.49	0.63	T.	3	18	2	11	nw.	Dr. D. Lawrence.
Golconda	Pope.	500	32	32.0	- 5.0	57	28	9	23	37	3.52	- 0.05	1.60	5.0	7	14	8	9	nw.	S. F. Haskinson.
Hoopston	Vermilion.	715	8	26.0	- 3.2	42	17 [†]	2	12	25	2.07	- 1.49	1.00	3.6	11	13	3	15	.....	C. C. Judd.
McLeansboro	Hamilton.	462	27	32.4	- 3.2	60	14	10	20	30 [†]	2.00	- 0.96	0.78	2.0	5	18	10	3	w.	G. M. Daugherty.
Martinsville	Clark.	630	22	26.6 ^b	- 6.8	46	19	6	21	35 ^b	1.15	- 1.03	1.00	1.5	3	9	5	13	nw.	Mrs. H. M. Phillips.
Mount Carmel	Wabash.	424	9	29.3	- 3.8	55	28	12	21	29	2.34	- 0.32	0.66	3.2	7	13	5	13	nw.	Geo. Harris.
New Burnside	Johnson.	556	15	31.8	- 3.8	60	28	10	13	32	2.93	- 1.07	5.0	3	13	12	6	w.	Victor E. Phillips.	
Olney	Richland.	436	23	31.0	- 3.8	52	27 [†]	8	21	30	1.78	- 0.98	0.91	4.6	6	14	7	10	nw.	Duane Shaw.
Palestine	Crawford.	500	28	29.2	- 3.6	46	17	9	21	30 [†]	2.19	- 0.69	0.80	3.0	7	9	7	15	nw.	H. P. Twymen.
Paris	Edgar.	600	17	25.0	- 3.8	48	17	7	12 [†]	31	1.25	- 1.13	1.10	1.5	2	17	9	9	nw.	H. A. Burr.
Philo	Champaign.	700	26	31.8	- 4.3	45	17	3	21	28	1.60	- 0.63	0.76	0.8	5	13	6	12	nw.	Wm. Breiner.
Rantoul	do.	768	19	26.2	- 2.8	47	17	3	12	29	1.57	- 0.54	1.28	1.7	5	14	5	12	nw.	A. P. Woodworth.
Robinson	Crawford.	500	10	30.4	- 1.9	52	28	10	21	30	1.88	- 1.33	0.60	T.	4	10	8	13	nw.</	

TABLE 2.—*Daily precipitation for December, 1910. District No. 3, Ohio Valley.*

TABLE 2.—*Daily precipitation for December, 1910. District No. 9—Continued.*

TABLE 2.—*Daily precipitation for December, 1910. District No. 3—Continued.*

Stations.	River basins.	Day of month.																														Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Tennessee.	Tennessee.																																	3.45
Ashwood.	do.	T.	T.	.15	.90	.10																											4.42	
Benton.	do.	T.	.01	.15	.80	.17	.10																									3.67		
Bird's Bridge||.	do.	T.	T.	.16	.36	1.00	.08																									2.68		
Bluff City||.	do.																																3.45	
Byrdstown.	Cumberland.																																2.91	
Carthage||.	do.																																3.45	
Cedar Hill.	do.																																2.91	
Celina||.	do.																																3.85	
Centre Point.	Tennessee.																																2.78	
Charleston||.	do.																																4.79	
Chattanooga.	do.			.01	.53	.28	.06																									5.00		
Clarksville.	Cumberland.	T.	.04	.68	.15																											3.13		
Clinton||.	Tennessee.	T.	.03	T.	.08	1.30	1.80	.08																							5.22			
Dandridge||.	do.	T.	.04		.07	4.40	.04																								4.30			
Decatur.	do.																																6.55	
Dickson.	Cumberland.																																3.09	
Dover.	do.	T.																															3.66	
Dunlap.	Tennessee.																																5.15	
Elizabethhton||.	do.	T.	T.	.14	.71	1.02	.01																									3.40		
Erasmus.	Cumberland.	T.	T.	.14	1.28	.22	.03																									3.62		
Florence.	do.																																4.08	
Franklin||.	do.																																3.95	
Hall's Hill||.	do.	T.	T.																													3.19		
Harriman.	Tennessee.	T.	T.	*	1.82	T.																										3.71		
Hohenwald.	do.																																4.68	
Iron City.	do.																																3.48	
Jefferson City.	do.	T.	T.	.16	45.17	T.																										4.39		
Johnson City||.	do.																																2.85	
Johnsonville.	do.																																4.23	
Kingston||.	do.	T.	T.	.09	90.12	T.																										4.13		
Knoxville.	do.	T.	T.	30.2	2.84	.01																										4.94		
Lebanon.	Cumberland.	T.																															3.31	
Lewisburg.	Tennessee.	T.																															3.94	
Livingston.	Cumberland.	T.																															3.94	
Loudon||.	Tennessee.	T.	T.																														5.05	
Lynnville.	do.																																3.81	
McGhee||.	do.	T.	T.	17.1	63	2.30	T.																									5.38		
McMinnville.	Cumberland.	T.	T.	.02	1.50	.02	T.																									3.60		
Maryville.	Tennessee.	T.	T.	12.2	83	.90	T.																									5.19		
Mountain City.	do.	T.	T.	.10																													2.75	
Nashville.	Cumberland.	T.	T.																														3.92	
Newport||.	Tennessee.	T.	T.	.26	.54	2.02	.14																								3.96			
New River||.	Cumberland.																																3.30	
Palmetto.	Tennessee.			.20	.12	.12	T.																									2.84		
Pinewood.	do.			.76	1.15	.18																										3.19		
Pope..	do.																																	
Rogersville||.	do.	T.	T.	T.	.10	54	1.53	T.																								2.96		
Rugby.	Cumberland.	T.	T.																														4.54	
Savannah.	Tennessee.																																4.05	
Sevierville.	do.	T.	T.	.15	2.35	.97	.10																								4.58			
Sewanee.	do.																															5.42		
Sparta.	Cumberland.	Tennessee.																																
Springdale.	Green.	T.	T.																															
Tazewell||.	do.	T.	T.	.10																													3.58	
Tullahoma.	do.			.03	1.50	.07																									4.11			
Walling||.	Cumberland.	T.	T.																													3.89		
Waynesboro.	Tennessee.	T.	T.	.12	.63	.17																									3.92			
Wildersville.	do.			T.	1.10	.05																									4.16			
Worsham||.	Cumberland.	T.	T.	.69		.30																									4.15			
Yukon.	Kentucky.	T.	T.	.30																												3.99		
Alpha.	Cumberland.	T.	T.																													3.47		
Anchorage.	Ohio.	T.		.05																												3.54		
Bardstown||.	do.			.10		.23																												
Beattyville||.	Kentucky.	T.		.18	T.	.16	.38	.66	.12																						3.92			
Beaver Dam||.	Green.	T.																																
Berea.	Kentucky.	T.		.12	.02	.12</td																												

TABLE 2.—*Daily precipitation for December, 1910. District No. 3—Continued.*

TABLE 3.—Maximum and minimum temperatures for December, 1910. District No. 3, Ohio Valley.

Date.	Pennsylvania.				West Virginia.												Ohio.																								
	Greenville.			Pittsburg.		Charleston.			Elkhorn.			Elkins.			Glenville.			Huntington.			Morgantown.			Parkersburg.			Wheeling.			Canton.			Cincinnati.			Columbus.			Dayton.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.							
1.	33	26	34	24	28	22	28	17	24	19	29	22	29	23	25	20	21	31	24	34	24	37	26	28	21	31	23	28	22	28	21	22									
2.	35	22	28	23	31	25	25	19	25	38	24	33	23	28	22	30	26	34	25	36	24	33	26	30	26	31	26	31	25	31	26	25									
3.	33	22	31	23	36	27	31	16	29	21	36	26	38	27	32	21	33	26	38	20	34	26	33	28	31	26	31	27	31	26	31	27									
4.	40	20	24	24	46	31	42	25	32	16	39	29	40	28	34	21	36	28	40	26	39	26	33	25	34	28	31	27	32	26	31	28	23								
5.	32	27	33	27	38	30	43	32	35	14	35	31	34	31	33	22	34	28	34	29	34	25	36	27	34	28	36	31	26	31	28	36	23								
6.	29	19	30	20	38	30	40	25	31	22	35	28	34	30	31	24	20	32	25	34	27	29	26	29	24	30	17	30	21	22	29	17									
7.	25	11	25	19	30	23	33	23	23	21	35	23	27	22	24	20	27	22	28	22	33	23	33	20	28	17	31	21	21	29	17										
8.	25	19	28	19	35	12	38	20	31	24	35	20	34	19	30	22	32	13	34	22	33	20	34	21	33	17	31	17	29	17	17										
9.	29	16	24	15	35	16	37	20	29	16	32	12	31	10	25	4	25	1	30	8	34	13	30	19	31	14	31	11	31	11	29										
10.	27	-2	34	14	40	25	46	23	40	15	38	15	40	10	34	37	15	35	5	30	12	44	23	36	18	36	19	36	19	36	19										
11.	30	24	32	25	42	20	46	20	32	24	40	30	36	22	35	18	35	24	32	7	30	17	37	18	31	19	33	21	31	19	33	21									
12.	30	5	25	21	43	16	38	17	26	17	32	20	27	16	28	18	25	18	27	23	31	21	29	14	25	16	27	12	25	16	27										
13.	30	-4	25	14	43	22	35	16	23	14	30	18	31	17	24	11	29	17	30	10	31	17	28	19	31	13	30	16	35	16	35										
14.	34	11	32	17	43	16	42	11	33	1	33	5	37	12	32	12	26	9	36	13	40	18	35	16	35	19	36	19	36	19	36										
15.	33	15	36	16	43	28	42	21	38	20	40	21	43	12	40	22	37	19	35	18	41	24	37	18	37	18	36	23	36	23	36										
16.	22	10	32	11	40	20	43	28	33	8	38	13	28	19	37	5	24	14	26	5	30	8	30	20	23	12	30	15	30	15	29										
17.	30	-3	34	11	44	16	45	45	32	-1	38	8	40	14	39	5	34	10	37	5	36	8	41	19	37	15	41	14	41	14	25										
18.	33	3	43	18	50	24	44	32	49	7	49	14	48	15	49	19	46	18	42	5	40	13	44	27	41	25	42	25	42	25	42										
19.	33	30	40	27	42	33	40	24	42	29	47	33	38	30	45	29	36	29	34	11	32	25	41	31	35	26	39	29	36	26	39										
20.	30	14	27	14	40	23	38	18	31	14	36	22	25	25	30	12	30	20	23	17	31	19	26	16	36	29	20	29	20	29	20										
21.	24	5	20	14	25	17	28	13	18	11	25	15	28	18	30	12	24	15	28	13	33	10	32	15	27	15	29	16	29	16	29										
22.	31	-1	35	13	42	15	43	6	37	8	37	6	36	12	34	9	34	12	34	5	39	10	40	19	33	16	37	16	36	16	35										
23.	39	25	42	35	54	31	45	35	45	34	49	24	39	13	46	4	44	31	40	5	40	14	42	31	36	27	40	30	39	27	40	30									
24.	35	22	36	25	54	30	42	32	38	23	49	29	33	29	46	27	34	24	32	26	35	24	31	18	28	25	30	26	30	26	30										
25.	25	18	25	21	38	20	46	34	28	21	36	23	36	19	27	22	24	20	30	12	31	19	28	16	24	14	21	16	24	14	21										
26.	39	20	38	23	42	22	48	33	40	22	48	22	44	20	39	20	42	24	37	20	43	19	46	22	40	24	42	21	40	21	42										
27.	35	25	39	26	48	31	50	17	45	28	47	29	53	26	43	35	41	27	36	25	38	20	35	22	36	21	37	21	36	21	37										
28.	43	21	54	34	63	37	60	35	60	27	65	37	60	26	57	35	58	33	56	30	62	25	57	38	53	35	54	33	54	33	54										
29.	41	31	55	32	68	48	65	45	61	45	63	29	64	49	63	50	61	38	49	37	43	34	46	34	44	32	42	33	44	32	43										
30.	33	13	32	20	67	33	60	29	48	25	62	30	45	33	61	25	38	26	30	27	34	12	34	25	32	22	33	18	36	18	36										
31.	36	-2	35	16	46	23	40	20	43	12	40	18	45	20	39	15	41	21	35	15	40	16	40	23	36	18	36	16	36	15	36										
Mns.	32.4	14.8	33.2	20.7	43.0	25.0	41.8	23.3	35.6	18.2	40.7	21.5	38.0	21.6	36.7*	20.2*	35.3	21.4	35.1	17.9	35.0	18.9	36.3	22.9	32.7	20.3	34.4	20.5													

Date.	Ohio.				Virginia.								Tennessee.								West Virginia.																			
	Marion.		Waynesboro.		Big Stone Gap.				Wytheville.				Asheville, N. C.				Decatur, Ala. §§				Chattanooga.				Johnson City.		Knoxville.		Nashville.		Palmetto.				Sparta.		Waynesboro.		Beattyville, Ky. §§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
1	30	24	32	21	29	25	24	19	23	18	40	33	32	24	25	28	24	32	24	29	29	31	21	30	24	31	25	28	20											
2	30	23	31	27	39	22	24	21	25	18	40	30	38	24	21	20	23	24	22	37	34	37	22	34	29	30	20	37	22	20										
3	31	23	33	25	34	23	31	18	37	25	45	20	40	24	20	23	24	38	24	43	18	45	19	41	18	37	22	32	17	17										
4	35	23	39	28	40	28	35	26	25	25	61	33	47	37	23	24	41	25	45	34	49	45	50	50	50	50	50	50	45	45	17									
5	36	24	36	30	44	32	35	29	48	35	58	40	57	38	33	37	52	37	44	30	54	38	48	25	50	34	35	40	35	18										
6	30	20	30	25	44	28	34	25	45	21	30	29	38	27	24	26	42	26	30	24	38	25	32	24	35	24	31	27	31	27										
7	31	11	29	21	29	25	25	21	29	20	35	35	33	26	23	24	31	26	37	25	35	19	38	23	40	25	32	21	31	21										
8	30	13	36	19	37	19	33	20	42	20	40	35	48	24	21	26	43	22	46	26	46	25	48	18	48	24	43	12	43	12										
9	28	5	32	3	42	19	38	24	44	23	50	25	52	30	27	33	43	26	44	24	52	24	48	18	53	23	49	14	49	14										
10	31	10	29	14	41	25	45	21	52	27	53	33	50	30	30	33	44	31	56	33	53	31	49	30	55	22	44	17	44	17										
11	32	25	34	21	41	27	37	27	41	31	40	27	50	33	30	33	45	31	45	31	47	23	48	30	48	22	42	25	42	25										
12	27	15	31	9	37	18	30	17	33	19	45	20	43	25	20	23	38	22	36	23	38	28	44	17	41	30	31	13	33	13										
13	29	8	30	11	34	20	30	18	36	15	38	22	37	23	20	23	36	19	39	20	38	16	42	14	39	20	33	13	33	13										
14	36	14	39	7	42	13	39	18	45	13	53	18	49	21	18	21	45	19	48	19	47	14	50	13	49	14	44	9	47	10										
15	34	23	45	31	37	15	37	28	46	22	55	30	54	33	30	33	43	28	61	36	55	29	52	19	55	28	47	10	47	10										
16	26	7	31	14	40	28	35	21	44	28	52	35	45	30	30	33	42	27	45	27	46	20	49	18	47	19	41	20	55	11										
17	33	11	39	12	47	16	46	14	47	19	50	35	45	34	30	33	47	23	50	22	50	18	52	16	55	11	55	11												
18	38	21	43	9	39	25	41	24	48	32	53	36	48	39	33	34	43	34	50	40	50	38	50	40	51	42	48	14												
19	40	27	39	21	40	32	38	30	44	30	45	33	47	36	30	34	42	34	50	36	49	29	50	27	51	33	46	28												
20	33	18	34	22	37	22	30	17	35	15	33	27	44	24	21	24	39	22	39	22	42	27	41	25	48	28	28	25												
21	25	11	38	18	29	14	20	14	25	13	45	16	36	19	16	19	30	17	34	16	37	12	38	10	41	11	37	8												
22	32	11	35	10	41	12	41	9	42	10	49	39	42	24	20	23	36	18	49	23	47	19	48	15	45	20	46	9												
23	36	28	36	12	44	26	43	25	45	26	45	35	43	34	30	32	45	32	42	27	42	27	43	31	35	16	29	29	15											
24	33	19	35	23	43	25	41	36	38	25	41	33	41	29	21	24	38	23	30	18	33	16	35	16	35	16	29	29	15											
25	33	11	28	9	49	20	39	20	46	20	43	21	41	29	21	24	38	19	40	14	46	16	48	14	46	26	37	17												
26	38	19	43	21	37	22	39	33	45	23	45	33	39	28	28	33	44	24	45	35	42	33	50	26	63	42	42	18												
27	35	20	47	34	41	31	50	29	55	33	60	39	43	36	33	36	41	33	57	35	61	37	60	30	63	57	57	25												
28	48	28	56	42	52	33	60	33	58	48	62	38	62	36	36	36	61	37	63	55	62	47	65	45	63	58	58	28												
29	42	32	42	18	63	42	61	36	58	45	64	45	62	50	49	56	66	49	65	36	60	49	66	45	63	45	63	45												
30	35	22	34	*8	59	32	48	24	48	28	45	35	50	34	34	34	49	30	42	32	50	32	49	32	46	22	47	30												
31	34	13	45	19	46	23	34	19	35	24	46	25	44	28	28	28	42	28	46	27	40	24	50	32	48	30	45	16												
Mns.	33.3	18.0	36.5	18.8	40.9	23.9	37.5	23.5	41.9	23.9	47.1	27.2	45.1	29.1	29.1	29.1	41.8	28.9	44.5	27.6	45.7	26.2	47.1*	24.2*	47.3	26.9	41.5	18.9												

MONTHLY WEATHER REVIEW.

DECEMBER, 1910

TABLE 3.—*Maximum and minimum temperatures for December, 1910. District No. 3—Continued.*

Date.	Kentucky.												Indiana.												Philo, Ill.			
	Bowling Green.		Erlington.		Greensburg.		Lexington.		Louisville.		Maysville.		Williamsburg.		Butlerville.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
1....	28	21	22	21	37	22	24	20	28	23	28	22	33	21	26	18	27	22	27	19	26	18	25	19	27	22	27	20
2....	36	17	35	20	38	21	30	22	36	25	33	22	34	22	35	23	34	22	32	24	32	23	30	24	31	23	32	19
3....	40	18	41	18	39	18	32	24	33	27	35	24	38	21	31	24	39	27	29	25	29	22	30	24	31	23	32	10
4....	43	27	40	24	41	21	38	25	40	29	42	17	43	28	37	13	35	25	27	26	26	17	30	24	31	12	28	13
5....	39	34	36	31	31	22	34	27	36	26	37	17	46	31	37	23	35	24	32	21	29	24	31	25	35	25	30	26
6....	28	21	30	21	35	22	27	21	28	23	29	28	32	28	30	20	31	23	25	19	26	15	28	16	30	20	28	18
7....	23	17	36	19	32	11	25	19	32	25	31	20	34	20	31	21	35	21	32	7	29	13	32	10	30	4	31	17
8....	42	19	40	20	45	10	34	18	37	20	36	15	46	18	36	11	39	23	32	15	25	7	29	9	32	10	35	13
9....	45	18	46	18	45	12	31	18	37	20	35	6	48	20	38	17	42	23	32	21	30	6	30	18	37	15	35	13
10....	45	30	51	19	45	12	41	25	48	28	43	7	50	23	44	23	45	35	39	25	35	19	36	25	42	30	34	26
11....	52	25	41	24	44	11	34	22	40	26	40	24	45	24	37	23	38	28	29	13	31	15	28	18	36	20	30	16
12....	33	20	43	20	38	16	23	11	28	16	28	8	34	18	30	10	28	17	26	8	24	17	25	5	28	11	23	6
13....	33	14	38	14	35	11	24	9	25	17	33	8	34	15	25	14	35	18	26	19	27	15	20	13	27	15	33	6
14....	45	14	46	14	47	10	37	12	42	16	40	5	49	11	40	14	42	21	39	18	37	16	41	16	41	13	43	15
15....	49	27	47	15	49	10	39	29	45	33	44	6	50	12	43	32	46	32	37	26	36	29	34	25	41	31	40	25
16....	50	20	43	19	42	16	29	19	36	25	34	16	44	20	35	20	43	25	32	21	31	18	28	18	38	15	36	13
17....	51	18	54	19	53	16	45	19	47	23	42	11	48	11	42	19	50	26	43	20	39	18	45	23	45	22	45	20
18....	53	38	51	21	47	15	43	34	45	35	43	14	52	17	44	29	51	33	42	29	35	26	40	26	45	34	37	25
19....	56	23	50	29	48	27	38	28	43	31	38	16	46	21	42	30	46	31	39	25	35	28	40	27	42	30	42	29
20....	28	27	30	28	49	27	29	17	31	20	27	24	29	27	32	15	32	20	25	14	29	11	28	14	33	17	29	11
21....	35	11	37	11	48	9	29	12	33	16	34	16	36	10	40	7	33	16	30	10	29	4	31	7	32	8	30	3
22....	51	18	47	12	43	6	40	19	44	24	42	13	44	10	45	17	44	27	39	23	35	10	35	21	41	36	36	19
23....	37	33	35	33	48	8	40	26	41	32	38	13	43	24	38	24	38	27	36	26	38	28	35	32	40	30	35	24
24....	28	12	29	19	25	10	26	16	32	17	28	18	37	19	28	12	27	15	26	12	30	11	30	12	32	13	24	6
25....	40	5	43	15	37	3	29	11	30	12	38	15	43	18	26	2	36	18	31	8	22	2	28	9	30	5	29	5
26....	50	25	47	24	44	3	40	27	46	30	42	16	42	27	42	20	42	32	36	22	34	21	35	24	36	25	36	20
27....	55	33	59	24	55	24	47	20	45	24	52	19	55	20	34	14	54	26	37	16	38	17	39	13	42	15	33	33
28....	58	43	62	28	57	26	54	47	58	42	66	20	60	31	56	34	57	40	50	34	44	32	48	35	50	36	44	33
29....	58	41	45	40	60	47	56	32	47	34	52	42	65	48	45	32	44	34	37	30	35	33	35	32	39	33	34	30
30....	42	30	40	27	50	31	34	26	36	28	39	30	45	33	34	20	36	26	30	20	34	16	32	18	37	22	30	18
31....	50	20	44	23	48	19	42	24	45	26	45	18	51	19	42	19	43	28	37	20	40	18	39	22	39	20	40	24
Mns.	43.0	23.4	42.2	21.6	44.1	16.6	35.3	21.9	38.5	24.9	38.5	17.1	43.9	21.7	36.9	19.4	39.6	25.4	33.5	20.4	31.9	17.6	32.5	19.5	36.1	20.9	46.5	17.1